

WHAT IS CLAIMED IS:

1. A radio communication system comprising:
a radio reception unit for receiving a radio
signal, extracting a characteristic of the received
radio signal, and converting the received radio signal
into a reception signal; and

a reception signal processing unit for converting
the reception signal into reception data on the basis
of the extracted characteristic of the radio signal.

2. The system according to claim 1, wherein the
radio reception unit comprises a receiver for receiving
the radio signal, a radio signal characteristic
extractor for extracting the characteristic of the
received radio signal, and a reception radio signal
converter for converting the received radio signal into
the reception signal, and

the reception signal processing unit comprises a
demodulator for demodulating the reception signal by
selecting a demodulation scheme on the basis of the
extracted characteristic of the radio signal, a
reception communication protocol processing unit for
executing a communication protocol process of the
demodulated reception signal by selecting a
communication protocol processing scheme on the basis
of the extracted characteristic of the radio signal,
and a decoder for decoding the reception signal, that
has undergone the communication protocol process, by

the communication protocol process, by selecting a modulation scheme on the basis of the extracted characteristic of the radio signal, and

5 said radio transmission unit comprises a transmission radio signal converter for converting the modulated transmission data into a radio signal, and a radio transmitter for transmitting the converted radio signal.

10 6. The system according to claim 5, wherein said transmission radio signal converter converts the modulated transmission data into the radio signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal.

15 7. An electronic apparatus with a radio communication function, comprising:

 a radio reception unit for receiving a radio signal, extracting a characteristic of the received radio signal, and converting the received radio signal into a reception signal; and

20 a reception signal processing unit for converting the reception signal into reception data on the basis of the extracted characteristic of the radio signal.

25 8. An apparatus according to claim 7, wherein said radio reception unit comprises a receiver for receiving the radio signal, a radio signal characteristic extractor for extracting the characteristic of the received radio signal, and

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the reception signal processing unit comprises a demodulator for demodulating the reception signal by

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a transmission signal processing unit for converting transmission data into a transmission signal on the basis of the extracted characteristic of the radio signal; and

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a radio signal characteristic extractor for

a reception radio signal converter for converting the received radio signal into a reception signal.

14. The device according to claim 13, wherein the reception radio signal converter converts the received radio signal into the reception signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal.

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a radio transmitter for transmitting the converted radio signal.

16. The device according to claim 15, wherein the transmission radio signal converter converts the modulated transmission data into the radio signal by selecting a conversion scheme on the basis of the extracted characteristic of the radio signal.

17. A semiconductor integrated circuit device for a radio communication, comprising:

a demodulator for demodulating a reception signal

a reception communication protocol processing unit
for executing a communication protocol process of the
5 demodulated reception signal by selecting a
communication protocol processing scheme on the basis
of the extracted characteristic of the radio signal;
and

18. The device according to claim 17, further comprising:

a transmission communication protocol processing unit for executing a communication protocol process of the encoded transmission data by selecting a communication protocol processing scheme on the basis of the extracted characteristic of the radio signal; and

19. The device according to claim 18, further

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a radio signal characteristic extractor for

a transmission radio signal converter for converting the modulated transmission data into a radio signal; and

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converting the received radio signal into

demodulating the reception signal by selecting a
5 demodulation scheme on the basis of the extracted
characteristic of the radio signal;

decoding the reception signal, that has undergone the communication protocol process, by selecting a decoding scheme on the basis of the extracted characteristic of the radio signal.

encoding a transmission signal by selecting a
conversion scheme on the basis of an extracted
20 characteristic of a radio signal;

25 modulating the transmission signal, that has
undergone the communication protocol process, by
selecting a modulation scheme on the basis of the

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a radio transmission unit for converting the transmission signal into a radio signal, and transmitting the converted transmission signal.

24. The system according to claim 23, wherein the
25 radio reception unit comprises a receiver for receiving
the radio signal, a radio signal characteristic
extractor for extracting a characteristic of the

the reception radio signal converter converts the
5 received radio signal into the reception signal by
selecting a conversion scheme on the basis of the
extracted characteristic of the radio signal,

the transmission radio signal converter converts
the modulated transmission data into the radio signal
15 by selecting a conversion scheme on the basis of the
extracted characteristic of the radio signal.

20 a radio reception unit for receiving a radio
 signal, extracting a characteristic of the received
 radio signal, and converting the received radio signal
 into a reception signal;

a modem/baseband reception/transmission signal processing unit for executing a reception signal process of the reception signal by selecting a reception signal processing scheme on the basis of the extracted characteristic of the radio signal, and

a demodulator/baseband reception signal processing unit for executing a reception signal process of a reception signal by selecting a reception signal processing scheme on the basis of an extracted characteristic of a radio signal; and

28. The device according to claim 27, further comprising:

20 a reception radio signal converter for converting
the received radio signal into the reception signal;

a radio transmitter for transmitting the converted
25 radio signal.

29. The device according to claim 28, wherein the reception radio signal converter converts the received

the transmission radio signal converter converts
5 the modulated transmission data into the radio signal
by selecting a conversion scheme on the basis of the
extracted characteristic of the radio signal.

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10         receiving a radio signal;
        extracting a characteristic of the received radio
signal from the received radio signal;

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converting the received radio signal into a
reception signal by selecting a conversion scheme on
15 the basis of the extracted characteristic of the radio
signal;

executing a reception signal process of the
reception signal by selecting a reception signal
processing scheme on the basis of the extracted
20 characteristic of the radio signal;

executing a transmission signal process of the encoded transmission signal by selecting a transmission signal processing scheme on the basis of the extracted characteristic of the radio signal;

25 converting the transmission signal, that has
undergone the transmission signal process into a radio
signal, by selecting a conversion scheme on the basis

of the extracted characteristic of the radio signal;
and

transmitting the radio signal.